

DATE: April 10, 2006
WWM PERMIT NO.: HI06WWIP323

PERMIT RATIONALE: APPLICATION FOR WASTEWATER MANAGEMENT PERMIT

PERMITTEE: CITY AND COUNTY OF HONOLULU
DEPARTMENT OF ENVIRONMENTAL SERVICES

AND

SYNAGRO - WWT, INC.

FACILITY/SITE: SAND ISLAND WASTEWATER TREATMENT PLANT

FACILITY/SITE ADDRESS

1350 Sand Island Parkway
Honolulu, Hawaii 96819

PERMITTEE MAILING ADDRESS

City and County of Honolulu
Department of Environmental Services
1000 Uluohia Street, Suite 308
Kapolei, Hawaii 96707
Contact: Dr. Eric Takamura, Director
Phone No.: (808) 692-5159
Fax No.: (808) 692-5113

Synagro - WWT, Inc
P.O. Box 30628
Honolulu, Hawaii 96820
Contact: John Poe Tyler
Plant Manager
Phone No.: (808) 847-0800
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PERMIT STATUS

The Permittee submitted an Individual NPDES Permit application (dated August 29, 2005) for coverage of a treatment works that generates wastewater sludge that is directly land applied.

The Department of Health (DOH) reviewed the application and requested in writing, dated September 19, 2005, that the permittee submit additional information. Additional information was submitted to DOH, dated October 20, 2005.

The Director of Health (Director) proposes to issue a permit to treat and dispose of wastewater and to treat and dispose of wastewater sludge that is land applied. The Director has included in the proposed draft permit those terms and conditions which the Director determined are necessary to carry out the provisions of the Hawaii Revised Statutes, (HRS), Chapter 342D, and Chapter 11-62, Hawaii Administrative Rules (HAR).

SCOPE OF THE ACTIVITY AND LOCATION OF THE PROJECT

The proposed project is located at the Sand Island Wastewater Treatment Plant. The scope of the proposed project is to operate the Sand Island Wastewater Treatment Plant including an In-Vessel Bioconversion Facility that treats wastewater sludge and converts the wastewater sludge into pellets that can be land applied as a soil amendment.

DESCRIPTION OF THE PROJECT

The Sand Island Wastewater Treatment Plant treats and disposes of wastewater collected from the greater Honolulu Area. The wastewater effluent will be regulated under a National Pollution Discharge Elimination System (NPDES) Permit and other than standard conditions, conditions regarding effluent quality will not be covered under this permit.

The wastewater sludge will be processed to generate pellets that can be used as a soil amendment. Raw wastewater enters the Sand Island Wastewater Treatment Plant where it is then screened and degrittied. The wastewater flows into primary clarifiers where the solids are separated from the liquids. The sludge then flows from the clarifiers into sludge thickening tanks before being pumped into egg shaped anaerobic digesters for treatment. The sludge is further processed in a dryer facility, where the sludge is dewatered, mixed with dried pellets, the dried in a rotary drum dryer to a temperature not less than 80 degrees Celcius and have a total solids content greater than 90% total solids.

WASTEWATER SLUDGE CRITERIA

The EPA has promulgated regulations for the use and disposal of wastewater sludge in 40 Code of Federal Regulations Part 503. In addition, the Director has also promulgated administrative rules for wastewater systems in Chapter 11-62, HAR. The Director has considered the criteria established in both the federal and state regulations and has determined that the Facility and the land application of the sludge pellets will not endanger human health or the environment. Based on current information, the Director proposes to issue a permit.

PERMIT CONDITIONS

The Director has considered the permit conditions to wastewater, wastewater effluent, and wastewater sludge associated with the facility, established pursuant to the Federal Water Pollution Control Act, Federal Clean Water Act, and the HRS. The Director has determined that the operation of the facility and the land application of the sludge pellets will not endanger human health and the environment when the Permittee complies with the conditions of the permit. Therefore, based on current information, the Director proposes to issue a permit.

PROPOSED DETERMINATIONS

A. General Conditions

1. Comply with all Federal and State Regulations, including any NPDES permits issued to the facility.
2. Ensure that all wastewater pumpers and haulers that discharge into the Facility are registered with the State.
3. Retain a copy of this permit and all other related material at the Facility or nearby office.
4. Submit signed copies of all reports required by this permit to the Director at the following address or as otherwise specified:

Director of Health
Wastewater Branch
919 Ala Moana Boulevard, Room 309
Honolulu, HI 96814

5. Include the following certification statement and signature on each submittal in accordance with HAR, Chapter 11-55, Section 11-55-07(b):

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations."

6. Include the Wastewater Management (WWM) permit number on each submittal. Failure to provide the assigned WWM permit number for this facility on future correspondence or submittals may be a basis for delay of the processing of the document(s).
7. Submit any changes to information on file with the DOH as soon as changes arise.

B. Special Conditions for the In-Vessel Bioconversion Facility

The Permittee shall:

1. Generate an exceptional quality sludge pellet for land application. If exceptional quality sludge cannot be met, the permittee shall contact the Director immediately and wastewater sludge must be disposed in a manner approved by the Director.
2. Inform all subsequent preparers, applicators, users, and disposers of the all federal and state requirements.
3. Not allow any wastewater sludge to enter the wetlands or other waters of the United States.
4. Not allow any wastewater sludge treatment, storage, reuse, or disposal contaminate the groundwater.
5. Apply best management practices to minimize nuisances such as objectionable odors.
6. Shall use only haulers and pumpers registered with the State to transport wastewater sludge.
7. Not store materials on-site for more than two years. If the wastewater sludge is stored for more than two years from the time it was generated, the Permittee shall ensure compliance with all federal and state requirements for surface disposal.
8. Not reuse wastewater sludge containing PCBs greater than 50 mg/kg of total solids (100% dry weight basis).
9. Have adequate facilities which to divert surface runoff from adjacent areas, protect site boundaries from erosion, and prevent any conditions that would cause drainage to escape from the site.
10. Monitor the wastewater sludge monthly, unless otherwise specified for:
 - a. Pollutants listed in Table IV, HAR.
 - b. Organic-N, ammonium-N, and nitrate.
 - c. Pathogens.
 - d. Vector attraction reduction.
11. Notify the end users of the NPK content of the wastewater sludge and of the application rates in section 11-62-42(e), HAR.

12. Shall submit an annual report to the Director by February 19 for the previous calendar year.
13. Shall not initially distribute the wastewater sludge without the written approval of the Director.
14. Shall retain all records for a minimum of five years. Copies shall be made available to the Director upon request.
15. Notify the Director, in writing, of any operational changes. A revised operations manual reflecting these changes shall be submitted for the Director's review and approval prior to implementation.